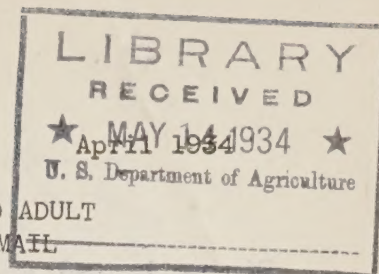


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TWO DEVICES FOR SHIPPING LIVING HOST LARVAE AND ADULT
PARASITES OF THE MEXICAN BEAN BEETLE BY AIR MAIL

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The successful shipment of living larvae of the Mexican bean beetle is attended with some difficulty, as these larvae are rather delicate and do not live long in the absence of food. Consequently the larvae must be supplied with food en route and they must also be provided with rough surfaces to grasp to prevent them from being injured during shipment. The device (fig. 1) described below supplies these requirements.

A cardboard mailing case is fitted with an interlocking device formed from two notched strips of paraffined cardboard. When in place this divides the case into four compartments. In each of the four central angles a rolled filter paper or absorbent cotton dental stick is wired and filled with water. Bean leaves are attached to the 8 sides of the cardboard device by paper clips. The metal ends of the tube are punctured by a number of holes and a circular piece of wire screen is soldered to each end. These cases are lighter than metal or wooden containers and do not collect heat or moisture.

Paradexodes epilachnae Ald., a tachinid parasite of the larva of the Mexican bean beetle, requires water, food, and a rough surface upon which to rest during shipment. The container (fig. 2) described below has been found satisfactory for this purpose.

A cardboard mailing tube is fitted with crossed strips of coarse muslin to serve as supports for the flies. Two water bottles are fitted with pieces of dental stick cut off flush with the top of the bottle and held in position by crossed pieces of thread, the loose ends of which are secured at the neck of the bottle by a rubber band. The bottles and muslin strips are secured to the inside of the cardboard case by pieces of wire. When filling the case with flies, a piece of lens paper is placed over the open end of the case and held securely by a rubber band. A hole is cut in the center of the lens-paper sheet large enough to admit the flies from a collecting bottle. A piece of black paper placed over the hole during interruptions in loading prevents escape of the flies from the case. After the case is filled the metal top is screwed on over the lens paper. These cases are lighter than metal or wooden containers and do not collect heat or moisture.

Explanation of Illustrations

Figure 1. --- A light-weight container for shipping living larvae by domestic air mail.

Figure 2. --- Light-weight container for domestic air mail shipment of adult fly parasites of the Mexican bean beetle.

